

ART
AND ITS
FUTURE
BY

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PUBLICATION “DE SIKKEL”

ANTWERP, 1924

L'ART
ET SON
AVENIR
PAR
G. VANTONGERLOO
EDITION "DE SIKKEL"
ANVERS 1924

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ART AND ITS FUTURE

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ANTWERP, "DE SIKKEL", — SANTPOORT, C.A. MEES

I. THE EVOLUTION OF SCULPTURAL ART

Sculptural art is the art of balanced relationships between volumes aiming for aesthetic unity.

This is the ultimate goal of every true artist, who seeks to achieve these balanced relationships using the means they find most suitable.

The more an artist becomes conscious of the balanced relationships between volumes and the means to express them, the purer their work will be, drawing closer to aesthetic unity. Intuition precedes conscious action.

For the artist, the process of evolution is a journey toward a conscious state through the path of intuition. To be conscious is to have a pure conception. Intuition is a tendency. This is why the artist goes through different phases to express, in the form of tendencies (often referred to as artistic tendencies, though they are merely human tendencies), the aesthetic unity.

All these intuitive tendencies become purely conscious through understanding, thereby reaching a universal style: the style of aesthetic unity.

When an artist's methods are intuitive, their way of thinking can only be intuitive, for in expressing their thoughts, these transform their means of action. This constitutes the artist's style.

When the style is unified, the way of thinking is also unified. (It is important not to confuse Unity with Uniformity.)

Thus, one can say that classicism, the Renaissance,

baroque, expressionism, futurism, cubism, etc., are ways of thinking, tendencies in the arts and among artists, toward a balanced relationship. These tendencies stem from an intuitive understanding that, through evolution, should lead them to a pure conception.

Thus, we can say, concerning balanced relationships, that the way of thinking of the Greeks was purely physical. It was local, belonging to and obeying the object. The Renaissance obeyed matter; the baroque, fantasy; luminism, a consequence of nature (the nature of light); expressionism, sensation; futurism, action, dynamism, destruction; cubism, a constructive method; and plastic art, balanced relationships tending toward universal aesthetic unity.

Through all these ways of thinking, artists sought to achieve balance in relationships, but they remained local and thus could not reach universal unity, as the local aspect dominated. This is why the conception of art must become conscious, and its means of externalization rational.

We need : unity without uniformity,
balance without stagnation,
life without agitation,
truth without sentimentality,
aesthetics without tricks or systems.

Aesthetic unity will be the ultimate truth and will encompass balance and life.

The plasticity of sculptural art is the relationship of volumes.

The plasticity of pictorial art is the relationship of colors.

The plasticity of musical art is the relationship of sounds.

The plasticity of sculptural art, therefore, does not consist in creating forms, natural objects, or rendering them pictorially. Moreover, when pictorial art penetrated sculptural art (Impressionism)

and sculptural art penetrated pictorial art (Renaissance, Baroque), there was a decadence of art.

Just as the sounds of nature - woods, sea, city - have nothing in common with the relationships of musical tones, and as noises cannot intrude upon the essence of musical art (as in descriptive genres), so too, one artistic essence cannot encroach upon another. Each art form must remain pure and within its own domain. This does not mean that sculpture and painting cannot unite with architecture. On the contrary, they can and should form a whole, a unity, without one art form encroaching upon or harming another.

The evolution of artistic conception faces many obstacles. This is why, for centuries, the sculptural and pictorial arts have drawn upon and been bound to material nature, which dominated and suppressed the spiritual aspect. As a result, the representative aspect of a sculpture or painting often stifled its spirituality. The subject was religious, historical, or psychological—therefore, once again, local—and art never reached universal unity. The materialization of the spirit was not expressed rationally, and in their inability to achieve this, artists sought to spiritualize matter through the use of subjects and objects. The local aspect remained the primary means. Thus arose the struggle within the evolution of art—not between spirit and matter, but for spirit and matter, expressed through subjects and objects rendered intuitively.

The artist intuitively senses their tendency toward spirit and matter but remains constrained by the subject and object, which are still in conflict.

The new artist must therefore break free from tradition and become conscious of universality: the unity of spirit and matter.

A review of the struggles between subject and object in the evolution toward spirit and matter will make this truth abundantly clear.

Let us simply trace art from Egypt to the present day:

Egyptian

Spirituality, materialization, effigy, tense style.

Greek

A transition from spirituality to objectivity, resulting in a less rigid materialization and thus a closer approximation to nature. Physical beauty is emphasized, while spirituality is absent, replaced by mythological themes.

Roman

Complete absence of spirituality, replaced by Roman history (Roman culture). Total lack of physical beauty conception, giving rise to COLOSSAL ART.

Medieval

A transition from materialism to spiritualism. Religious art materialized spirituality through objectivity. Objectivity was a middle ground between the tense style and naturalism. Religion was the central theme and motivation.

Renaissance

Decline of the religious motif. Materialism dominates. The religious aspect becomes historical and applied. Natural composition and material replace religious composition.

Baroque

Exaggeration of objectivity. A descent into fantasy and decadence. Completely devoid of spirit, Baroque art becomes superficial ornamentation—anti-artistic and merely for show.

Luminism

Superficiality is replaced by a natural consequence. What appears becomes the goal. This goal gave rise to the emphasis on colour values. Luminism sought the values of colours in relation to objects.

Since the essence of pictorial art lies in the relationships of colours tending toward aesthetic unity, Luminism could not achieve satisfaction because it sought only colour values and not the relationships between colours. Spirituality was entirely neglected, and art became merely a technical skill.

Impressionism-Expressionism

A tendency toward spirituality, though spirituality was confused with sensitivity. Expression and impression became the goals.

Neo-Expressionism

A breakaway movement; a desire for pure spirituality achieved through natural evolution. From this emerges the desire to understand and to seek movement.

Futurism

Art becomes destructive in its output.

Cubism

From this arises the desire for various tendencies. Dynamism is emphasized, leading to Cubism and Futurism. Dynamism and movement are merely natural consequences and belong to the realm of matter. The subject is rejected and replaced by a consequence of existence, which is then materialized.

Plastic Art

Rejects consequences—or, more precisely, does not concern itself with them at all. It seeks balanced relationships between colours, volumes, and sounds, aiming for aesthetic unity. It is purely aesthetic and achieves this through unity.

Struggle between spirit and matter toward a balanced relationship.

Desire for spirituality.

Decline of objectivity

The objective means were not sufficiently refined to balance spirituality and form a unity. Objectivity distracts and leads to decadence due to the unbalanced duality of spirit and matter.

To realize spirituality, a spiritual form is necessary—hence, an abstract form.

Absolute material form is in conflict with spiritual form because material form is always historical (localized). Spirituality demands a form that encompasses both spirit and matter, thereby situating the work within a universal domain.

Material form is historical because it is local: examples include “God X,” “King Z,” “Aphrodite,” still life, *Le Déjeuner sur l'herbe*, woods, sea, and any other localized objectivity.

Spirituality, on the other hand, is universal because it is without limits. For this reason, a universal form is required to achieve balance with spirituality within unity.

Just as art evolves, so does the artist. The artist passes through various periods, beginning with intuition, which forms their tendencies.

As the artist’s intuition becomes purer, their tendencies are also refined.

The artist progresses through different stages of intuition, gradually elevating their tendencies until they reach unity.

The artist has always pursued the same goal, but has relied solely on intuition to guide them. They must learn to conceptualize their intuition because the greater the understanding, the greater the achievement.

When, through the purity of their conception, the artist becomes conscious, their art attains balance—achieving unity of spirit and matter.

This journey is not without struggle. It is the earthly battle that every true artist must confront.

The artist intuitively possesses the certainty of the existence

of unity but is distracted by the era they live in, which makes evolution slow and challenging. I can affirm this because, in my career as a sculptor, I have gone through these stages of evolution.

In my early works, I aimed to express a natural sentiment based on 19th-century concepts. Emotion (intuition) guided me. Later, I became more spontaneous, but I remained intuitive.

While creating these works, I felt the resistance of matter and wanted to overcome it. My focus was entirely on the material. Emotion barely surfaced because physical beauty dominated. These works, contradicting the intuition of unity and the desire to materialize spirituality, led to a new concept still influenced by matter, but the work was already more constructive. Planimetry, the relationship between volume and void in connection with the object (nature), became the main goal. The desire for spirituality remained but was still tied to material concepts (emotion), resulting in work **VII**.

Tendency toward construction: **Fig. VIII**.

Struggle between spirit and construction: **Fig. IX**.

Intuitive conceptions of the relationships between volumes could not be realized because of the limitations of intuition. The volumes and relationships remained local.

Construction of the object alone: **Fig. X**.

This last work provoked a great struggle and made me aware of the impotence of our traditional and objective sculptural art. I felt in it only a source of distraction. The object destroyed the spirit. There had to be something else. With the old methods, it was a lost cause. The desire to achieve unity and understanding set me on the path. My reflections published in “De

Stijl” (*) attest to this. Unity of spirit and matter—not one without the other, but one with and through the other. Always perfect balance, and conscious execution emerged. It was no longer sculpture based on models or the mere representation of nature but the conception of universality.

My first sculpture in this new direction was constructed within the infinitely large and the infinitely small. It was still derived from a natural object, but already the objectivity was destroyed.

Though the local aspect of this still-objective work was broken, it did not yet convey the balance of volume relationships but already presented an abstract form: **Fig. XI**.

In works **XII** and **XIII**, the relationships are already presented in a constructive manner. Although the object is borrowed from nature, these works are already purer, moving toward universality.

When we understand that art is a product of the mind, that it finds its continuity in evolution, and that nature finds its continuity in propagation, then this evolution will no longer seem strange, and the necessity of the desire for unity in the evolution of art becomes clear.

Sculptural art is the art of balanced volume relationships aimed at an aesthetic unity.

Brussels, February 1919.

(*) Dutch periodical. See No. 9, 1st year.

Nos. 2, 3, 5, 7, and 8 of the 2nd year.

Nos. 2, 3, and 4 of the 3rd year.

II. ANCIENT ART AND NEW ART

I imagine for a moment that I am in front of an audience who asks me to explain what sculpture is and what I mean by the plasticity of sculptural art.

Numbers (for example, the number 100) will provide us with an example.

I think I am in front of people who do not know how to calculate. Sculpture is a number X of small sculptures placed next to each other, whose total forms the unity of the work (head, fragment, group, etc.). The number 100 is a number composed of a quantity of numbers fused together: 1, 2, 3, 4, etc.

Since my listeners do not know how to calculate, they will say to me: "I don't quite understand. Could this be a science that surpasses my comprehension? Could you please go back to the question of the number 100?"

But I will say: "That's enough for today."

Having allowed my listeners time to digest this presentation of the number 100, I will continue with the demonstration.

So, the number 100 is our unit of sculpture.

This number 100 is divisible into two equal parts, which we will each call 50.

The unit of sculpture is divisible into two parts by a vertical line passing through its axis.

Half of 50 is 25, and 25 is a quarter of 100. We represent this quarter as the fraction $\frac{1}{4}$.

From the number 50 to the number 100, the midpoint is at the number 75, which we represent as $\frac{3}{4}$.

Our half of the sculpture thus obtained is divisible into two parts by a horizontal line.

We have now created four parts, each corresponding to the number 25.

In our division of the sculpture, we take the base as our starting point, just as the number 1 is the basis of all calculation.

Less than 1 is a fraction of 1, and without any fraction, the number is 0.

Outside of the sculpture (the volume), there is emptiness.

That's enough for today as well.

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The number 100 is composed of 10 equal parts, each being $\frac{1}{10}$. $\frac{5}{10}$ equals 50, and half of 10 is 5, whose half is $2\frac{1}{2}$.

Our sculpture is also divisible into ten parts with equal proportions.

Each tenth is further divisible, and we get 5, whose half is $2\frac{1}{2}$.

We keep subdividing our number and our sculpture.

I could have said that half of 25 is $12\frac{1}{2}$, but I chose to speak about the proportions of $\frac{1}{10}$ to demonstrate the variations in the divisibility of the number 100.

Sculpture, which is the art of volume, is measured in cubes.

Everyone knows what a number is, but not everyone knows mathematics or the science of calculation.

You can therefore also understand what the science of volume entails.

In calculation, if the relationships between numbers

create a balanced—therefore correct—proportion, one stops and is satisfied. Everything is correct.

Unity means that everything is balanced. One stops, satisfied, because the beauty that lies in the harmony of proportions gives us the emotion of plastic beauty.

Sculpture is therefore subject to the law of the cube, which distinguishes it from painting, governed by the law of the second dimension and the law of colour.

Colour is like light: it reveals itself on the surface it occupies. A colour has no volume, and if volume is introduced into a painting, its pictorial plasticity will no longer be pure. Similarly, in sculpture, cylinders, spheres, and other solids cannot create a unified relationship.

This is why futurist and cubist arts cannot produce satisfactory results. Although these styles are more abstract than traditional art in their manifestation of form, they do not approach unity. This artistic tendency remains a result of intuition. Only a conscious act can lead us to pure plasticity.

To demonstrate this mathematically, I present two works for examination: The *Pietà* by Rogier van der Weyden, the primitive, and *The Fall of the Rebel Angels* by Pieter Bruegel.

The primitives sought flat colour and suppressed perspective as much as possible. They often gave their figures acute angles, resembling wooden mannequins, to better emphasize the angle and thus, quite intuitively, create a division in their canvases.

If we examine the works of Albrecht Bouts, we see his figures positioned like mannequins, with stiff arms

and upright bodies that can be considered lines rather than human forms.

If we divide the *Pietà* by Van der Weyden as we divided our number 100, we notice that the cross splits the canvas in the middle, just as 50 is the midpoint of 100. The hanging arm of Christ provides the ratio of 25, and the small balm jar represents half of that, 12 1/2. The difference in the position of the balm jar, balanced by the skull and Christ's arm, shows that Van der Weyden deliberately avoided symmetry. This same intent led him to shift the square in which Christ is positioned along its diagonal.

When the canvas is divided by the cross, it forms two sections that can each be subdivided according to our demonstration of the number 100. We observe that every figure is placed exactly where it should be.

The horizon is also positioned at a quarter of the height of the canvas, ensuring good composition.

The hanging arm of Christ aligns with the head of the figure on the left, marking a quarter division of the canvas. The skull, in balanced harmony with the balm jar, subdivides the other quarter.

When analyzing the canvas and its divisions, one realizes that these proportions were intentional. Such an analysis reveals the plastic beauty of the work.

The emotional aspect of this painting lies precisely in the harmonious composition or division of the canvas. It is not the Virgin, Christ, or the balm jar that makes the painting beautiful, but the positions they occupy. The hanging arm of Christ would not lose its quality as an arm if it were placed differently, but the composition would not allow for such a change.

Many people are not interested in religion. Thus, it is not the subject matter that moves them, yet they admire the work.

Van der Weyden's work can therefore be considered as moving toward pure plastic art. If Van der Weyden were alive today, he would not address a religious theme specific to his time but would instead focus on the laws of colour and line, abstracting from any local subject.

Now let us examine *The Fall of the Rebel Angels* by Pieter Bruegel, where we observe an analogy with the dynamism of the Futurists. This dynamism aligns closely with the theme of the "fall," which we can compare to *Composition VI* by Kandinsky.

The reader can judge by comparing these two works.

In Bruegel's painting, all lines are intersected. The angels are intersected, sometimes by a wing, sometimes by a monster's tail, a sword, or another accessory—all of which are themselves intersected. The whole composition is chaotic, effectively expressing the fall.

One colour is disrupted by another rather than being constructed according to balanced proportions, creating a sense of great movement. If we disregard the elements—angels, swords, trumpets, animals, etc.—and replace them with colour and line, the work will strikingly convey the dynamism that the Futurists emphasized in their tendencies.

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Art, therefore, is a science, not a whim.

Plastic art is the pure medium: whether colour or volume.

A work of art is a composition aimed at an aesthetic goal through a purely plastic medium.

Thus, the work of art manifests unity.

I do not mean to say that art is merely the science of plasticity, but it is essential to know this science to create a work of art. Indeed, it is impossible to express unity through a composition that does not adhere to the laws of plasticity.

Knowledge of science alone does not allow one to create an aesthetic work, and knowledge of aesthetics alone does not enable the creation of a work of unity. Pure plasticity in pictorial art lies in the juxtaposition of colours according to the laws of colour, as well as in the harmony of lines. The local drawing—man, woman, animal, tree, trumpet, etc.—is replaced by line, and the local colour—flesh tones, the colour of a tree, a flower, or a house, and their nuances—is replaced by pure colour following the laws of colour.

Perspective, local colours, and natural imitation are contrary to pure plasticity—that is, the plasticity of colour and line. Natural imitation cannot produce perfect emotion; this emotion reaches its peak when the work of art is conceived according to pure plasticity, which is the only means of achieving the unity of spirit and matter.

Here is a work: “*Composition in Violet-Indigo*”, which I regret not being able to present in colour. This work was created according to my artistic understanding, which led me to compose in this way within a given surface. I explored all the variations that the violet-indigo spectrum could produce based on what I wanted to express.

The surfaces of each colour are mathematically balanced with one another. On a given surface where the divisions are differently coloured, each colour occupies an area proportionate to the others to

form unity. No colour can dominate or recede in terms of hue, value, or area without breaking the unity of the work, which was conceived in the violet-indigo range within a determined surface.

In sculptural art, volume replaces form. Local forms harm unity. Volumes must therefore be mathematically balanced in the composition of the work the artist wishes to create.

I now present a sculptural work titled “*Composition III (construction of volume relationships)*”. This composition was designed following our previous study. The entire work is contained within a determined volume, in which I sought to harmonize and balance all the volumes to form an aesthetic unity.

Menton, 8 March, 1921.

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III. UNITY

SPECULATION, EMPIRICISM, AND EXPERIENCE

Unity, or absolute truth, encompasses both spirit and matter, which exist in perfect balance within unity.

We grasp the spirit through speculation and matter through experience.

Various schools of thought—dualism, monism, sensualism, and all the other “isms”—have sought truth but through imperfect methods of experience and reflection. These systems, striving for an understanding of unity, have been the subject of extensive debate.

Empiricism, relying on experience as its tool, assumes that experience contains unity. From there, it is but a short leap to believing that experience *is* unity.

However, empiricism neither realizes unity nor acts as its verification or origin. It is merely a tool to attempt to comprehend and explain unity.

Unity has existed for all time. We unconsciously recognize it, yet we always attempt to define it based on our knowledge and experiences—through methods that represent only one facet of its materialization.

Our ancestors, like us, had an intuition of unity. I would argue they were closer to the truth than we are, as they were not corrupted by experience alone. However, their means were too religious, relying on

so-called revelations, and thus failed to unite spirit and matter.

As soon as humanity sought to understand unity, it mistook the method for unity itself—or, at least, as something containing unity. Yet, any method, whatever it may be, serves only as a medium: whether it be a means of thinking, that through which we think, or that which we experience.

All “isms” are merely methods, but because they are local in nature, they belong only to a localized truth and cannot reach unity. Spirit, or spirituality, is replaced by thought, and matter by an object. This applies equally to art. Artists take natural objects to represent nature itself and the localized idea around these objects for spirituality. From this arise psychology, expression, religion, and so on—leading to subjects, objects, and fragments of nature.

Thus, unity of spirit and matter is essential. Philosophy and science must progress together, not separately. Philosophy, science, and art must aim for unity, using speculation and experience as the human tools of understanding.

Understanding, intelligence, and ignorance, like all aspects of creation, are relative and depend on the individual’s qualities. Some grasp understanding with ease, others excel in specific areas, creating a world where everyone specializes in what interests them most. A skilled philosopher may be a poor scientist. A talented musician might lack any notion of pictorial art. This disparity may stem from an individual’s conception of unity, which many gifted individuals fail to possess. As a result, their talents lack lasting significance.

Beyond the category of gifted individuals, there are those

capable of receiving and processing the ideas of others. They can hear and discuss an idea but are incapable of creating one themselves. They think through others. They propagate.

Thus, it remains the category of the obstinate, those incapable of understanding or formulating an idea, whose only ability is to disrupt any action beyond the realm of animalistic life. It is within a world composed of so many kinds of individuals that each person must engage in a struggle, as the brute opposes intelligence and intelligence opposes the brute. However, one does not need to be brutish to fail at understanding others' ideas; even a misinterpretation of something can be enough to obscure its true significance.

This is why so often, people are obstinate and unable to assimilate the ideas of others. For instance, many misunderstand the value of modern art and believe that modernists discredit the art of the past.

Modern art does not contradict ancient art, nor does it neutralize it. It is something entirely different. The modern conception proclaims only the truth.

What is Truth? It is unity, the whole.

What is the whole? It is you, me, gases, liquids, solids, atoms, molecules, the mind.

And how can one represent this whole? Clearly, it is not by reproducing an atom, a liquid, a gas, or a portrait of a person. Instead, I will strive, through the means of plasticity and by producing an aesthetic outcome, to achieve harmony, unity, Truth.

And what is this plastic means? The plasticity of pictorial art lies in the relationship of colours—not local colours, such as those of an atom, a solid, a landscape, or a person, but the colours of the absolute spectrum. The artist will compose an aesthetic harmony

to manifest the existence of unity—the Whole, the Truth.

The juxtaposition of volumes, their relationships, and ultimately the laws of volumes or solids constitute a plastic means that enables the artist to demonstrate the existence of unity, of Truth. Just as creation itself serves as a means to reveal unity and to help us understand a law—the law of balance—the artist uses matter, subjecting it to their law of equilibrium. Thus, the volume becomes the medium through which the sculptor aims to materially manifest the unity of volumes and their relationships, for nothing exists in isolation; everything is interconnected.

This art will no longer be fetishistic or merely local but will be universal. It will embody unity within itself and express it.

The juxtaposition of colours and their relationships, governed by the law of colour, constitutes the painter's plastic means. This law is the spectrum of the absolute—not the solar spectrum, but that of unity. Through this means, the painter proclaims Truth.

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The analysis of the spectrum of the absolute reveals distinct, successive manifestations, each well-characterized: sound, heat, light or colours, and chemical [ultraviolet] rays are expressions of the fundamental laws of the spectrum of the absolute, displayed at varying degrees.

This thesis, proposing identical manifestations of primordial laws, can only be accepted through the science of monism, which demonstrates so clearly that everything is interconnected. The various phenomena perceived by our senses differ only because of the imperfections inherent in our sensory system. This is why dualists make judgments that are localized and fragmentary.

We fully acknowledge the differences between sound, heat, light, and

chemical [ultraviolet] rays. However, these differences arise solely from their individual characteristics.

To focus only on the characteristics specific to sound, we will observe that the differences between one sound and another are immense.

The absolute spectrum, emanating from unity and being unity itself, is, like harmonics, always varying but with a constantly consistent pattern. This requires an explanation.

This general pattern can be compared to the days that follow one another but never resemble each other.

Let's look at the pattern of harmonics. We know that the straight line is infinite, and by definition, we take the segment as the straight line, meaning the portion of the line that lies between two points. In reality, this straight line can extend indefinitely, and we stop the line as if infinity could be divided. In geometric terms, we have the half-line, the line segment, etc.

Thus, starting from the absolute unity: 1, if I double it and then double the result again, and again, I get the pattern: 1, 2, 4, 8, 16, 32, 64, etc.

If I take half of unity, my starting point would be 0.5 or $\frac{1}{2}$ (relative unity), and I would get the pattern: 5, 10, 20, 40, etc., and the pattern would be the same as the absolute unity.

For the portion 3, I would have the pattern: 3, 6, 12, 24, 48, etc. The pattern would be identical for the starting points 7, 9, 11, 13, etc., becoming relative unity. But none of these movements will ever meet another, and we would observe that while the pattern of harmonics is constant, the manifestations are variable, and this eternally.

This is how sound is found in one portion of unity, and light in another.

Taking the infinite line as a comparison again, each manifestation of the spectrum would be a segment taken from different points along the line.

We cannot define a thing except in its local character; otherwise, we could define the mystery of infinity, yet infinity remains and will remain indefinable for a long time, although we can analyze its fundamental and particular laws.

This is why we cannot define each of the specific colours of the spectrum, because each of them only extends over the width of a line, that is, from one point or, properly speaking, the value of the first manifestation of space.

When we want to define a colour, we try to get as close as possible to the absolute colour.

The difference between red and blue, for example, is very noticeable because it spans the entire range of red and the entire range of blue. That's why, when I talk about red, it's clear what I mean, our memory represents red in all its possible manifestations, but always within the realm of red. So, if I talk about white, our memory will not represent the absolute white that no one has ever seen, but rather the white that people know and on which no one can truly agree, because this white is the personal white of each observer. The same is true for red, orange, etc... and this, I repeat, because each of the pure, fundamental colours of the spectrum only extends over the value of a line, which is infinitely less than the space occupied by two rays.

This is why it is necessary to understand, once and for all, that when I speak of a colour, I refer to the one that comes closest to the absolutely pure colour but is indefinable except by calculation, which is not perceptible by our eyes.

The spectrum of the absolute therefore contains all the spectra, each of which is

the history of each stage of universal evolution.

Nature is constantly transforming (evolving) through the undulations of movement, which must always become more perfect and pure. Stagnation in the evolutionary movement would simply be a return to nothingness.

Thus, starting from its first movement lost in infinity, nature seeks to balance it. This movement accelerates because the opposite of movement is rest or instantaneous motion. The undulatory movement evolves and passes through a multitude of stages, which are the spectra specific to each stage of movement. As such, vibrating waves evolve and become perceptible to our sense of hearing from 32 double vibrations per second [Hz]. The movement, evolving and perfecting, will reach 73,000¹ vibrations per second [Hz]. It will further perfect itself, increasing its frequency, until we no longer perceive anything. Later, the frequency will become so high that the movement will transform into heat, then later still, into light, and eventually into chemical [ultraviolet] rays. Between each of these phenomena, there is a dark period because we lack a sense to perceive it. This is why many physicists believe that each phenomenon completes a closed cycle and that the following phenomenon is of a different nature. However, it is simply the evolution of the same phenomenon, whose characteristics can be found in the laws of unity.

One must not confuse the manifestations of the phenomenon with the phenomenon itself.

A tree follows the same physiological laws as a human: it nourishes itself, it breathes, it reproduces; the nature of the phenomena is identical. Both have personal faculties that allow them to obey the laws of nature.

I do not mean to say that a tree is a human, or vice versa, nor that they are equal.

When I speak of the analogy between sound and colour, I do not confuse these two distinct phenomena. I am considering only the common laws that bind each of them to the unity from which they emanate.

I can therefore conclude that the spectrum of the absolute contains various spectra whose general appearance is always the same: sound, heat, light, invisible rays, not to mention the spectra that are unknown to us and which certainly possess immense power. Between sound and heat, there is an infinity of vibrations imperceptible to our senses, but which will one day be used by humans and which certainly have an effect on our organs, though we are not yet aware of them.

If everything is connected and nothing can be isolated, the slightest vibration must have an effect simply by the fact that it exists.

If a sound wave develops, it is no longer just sound but goes beyond it towards caloric [infrared] rays. The more the wave evolves, the faster its vibrations become; it will manifest in another way, and a special sense will be needed to perceive it. Beyond heat, the wave manifests as light.

Thus, the manifestation of colour is the same as that of sound:

The colour spectrum begins with red. That is, when caloric [infrared] vibrations become luminous, red appears. As the frequency of the vibrations increases, the caloric [infrared] domain is surpassed, and the colours begin to emerge, continuing until the light spectrum completes its cycle.

Let us analyze the light spectrum, for example.

As soon as the frequency of the vibrations is sufficient, that is:

484,921,875,000,000 [Hz],² we enter the realm of colour and red appears. From this moment, the frequency of the waves progresses with incredible speed, and the spectrum extends. Blue shows up (this marks the creation of the spectrum). Later, yellow and violet-indigo appear. The spectrum keeps extending, and we see orange, then green-blue, then blue-indigo, and finally violet. The spectrum continues to expand, and green appears, followed by indigo.

As the spectrum extends, each intermediate colour is born, and we thus see the seven colours of the rainbow.

In reality, the number of intermediate colours is infinite.

The study of harmonics allows us to understand the nature of the spectrum of the absolute, and consequently, of each particular spectrum, since they all obey the same fundamental law.

Here is the pattern of the harmonics:

First harmonic:

It is nothingness or the absolute.

Second harmonic:

It creates movement. This is the first manifestation of the spectrum, which can be compared to *red*. Indeed, it is the first colour to appear in the light spectrum.

Third harmonic:

Stretching the spectrum, it brings out what I will call *blue* (because true colours only appear at the 8,000,000th harmonic, but following the same laws or progressions).

Fifth harmonic:

Value corresponding to *yellow*.

Ninth harmonic:

Value corresponding to *orange*.

Fifteenth harmonic:

Value corresponding to *violet*.

Twenty-first harmonic:

Value corresponding to *green*.

Twenty-seventh harmonic:

Value corresponding to *indigo*.

INDIGO: last manifestation.

The following spectrum will manifest as sound, at the first pure tone of the next spectrum, or the red value. Preceding sound, the spectrum contains seven fundamental tones. After the 32nd harmonic, everything fragments.

In the light spectrum, the tones are even more fragmented as the spectrum stretches, continuously revealing subdivisions (the spectral lines of light), but the seven fundamental tones always remain in the same place.

For the particular study of light, I started from the 32nd harmonic for the faculty of calculation (since I study tones, not the spectral lines). These calculations are the same as those I would have made starting from the 8,000,000th harmonic, which actually reveals the red of the light spectrum.

Thus, it will be sufficient to multiply the double vibration [cycle], i.e., 32,328,125, by each harmonic and divide the length of 3,200 meters by the result of the multiplication to know the ratio of each colour over a distance of 25 centimeters.

To determine the exact position of each colour over a length of 25 centimeters, the following operations must be performed:

Vibrations [Hz]	Harmonics	Result [Hz]	Colour
32,328,125	× 32	= 1,034,500,000 ³	red
32,328,125	× 33	= 1,066,828,125	

32,328,125	× 34	= 1,099,156,250	red-orange
32,328,125	× 35	= 1,131,484,375	
32,328,125	× 36	= 1,163,812,500	orange
32,328,125	× 37	= 1,196,140,625	
32,328,125	× 38	= 1,228,468,750	orange-yellow
32,328,125	× 39	= 1,260,796,875	
32,328,125	× 40	= 1,293,125,000	yellow
32,328,125	× 41	= 1,325,453,125	
32,328,125	× 42	= 1,357,781,250	green
32,328,125	× 43	= 1,390,109,375	
32,328,125	× 44	= 1,422,437,500	green-blue
32,328,125	× 46	= 1,487,093,750	
32,328,125	× 48	= 1,551,750,000	blue
32,328,125	× 50	= 1,616,406,250	
32,328,125	× 52	= 1,681,062,500	blue-indigo
32,328,125	× 53	= 1,713,390,625	
32,328,125	× 54	= 1,745,718,750	indigo
32,328,125	× 55	= 1,778,046,875	
32,328,125	× 56	= 1,810,375,000	indigo-violet
32,328,125	× 58	= 1,875,031,250	
32,328,125	× 60	= 1,939,687,500	violet

When you take a string of 3200 meters and divide this number by the one representing the red vibration, which is 1,034,500,000 you get:

Metres	Vibrations [Hz]	Ratio (x 10 ⁻¹⁸)	Colour
3200	: 1,034,500,000	= 3,093,281,778,637	red
3200	: 1,066,828,125	= 2,999,545,967,660	
3200	: 1,099,156,250	= 2,911,324,000,000	red-orange
3200	: 1,131,484,375	= 2,828,143,340,000	
3200	: 1,163,812,500	= 2,749,583,800,000	orange
3200	: 1,196,140,625	= 2,675,270,000,000	

3200	: 1,228,468,750	= 2,604,868,866,000	orange-yellow
3200	: 1,260,796,875	= 2,538,077,325,000	
3200	: 1,293,125,000	= 2,474,625,420,000	yellow
3200	: 1,325,453,125	= 2,414,268,705,126	
3200	: 1,357,781,250	= 2,356,786,000,000	green
3200	: 1,390,109,375	= 2,302,000,000,000	
3200	: 1,422,437,500	= 2,249,660,000,000	green-blue
3200	: 1,487,093,750	= 2,153,193,100,000	
3200	: 1,551,750,000	= 2,063,445,600,000	blue
3200	: 1,616,406,250	= 1,979,700,000,000	
3200	: 1,681,062,500	= 1,903,546,594,380	blue-indigo
3200	: 1,713,390,625	= 1,867,641,820,000	
3200	: 1,745,718,750	= 1,833,056,000,000	indigo
3200	: 1,778,046,875	= 1,799,727,580,000	
3200	: 1,810,375,000	= 1,767,590,000,000	indigo-violet
3200	: 1,875,031,250	= 1,717,411,389,000	
3200	: 1,939,687,500	= 1,649,000,000,000	violet

To find the precise location of each colour on a length of 25 centimeters, we need to take measurements on the monochord of one meter between 50 centimeters and 25 centimeters. The number previously found: 3,093,281,778,637, occupies position 50 on the monochord of one meter, and the other colours will occupy precise locations by applying the reduction of the following formulas:

colour	formula	occupies location (cm)
red	$(50 \times 3,093,281,778,637) / 3,093,281,778,637$	50.000
	$(50 \times 2,999,545,967,660) / 3,093,281,778,637$	48.480
red-orange	$(50 \times 2,911,324,000,000) / 3,093,281,778,637$	47.056

	$(50 \times 2,828,143,340,000) / 3,093,281,778,637$	45.390
orange	$(50 \times 2,749,583,800,000) / 3,093,281,778,637$	44.444
	$(50 \times 2,675,270,000,000) / 3,093,281,778,637$	43.243
orange-yellow	$(50 \times 2,604,868,866,000) / 3,093,281,778,637$	42.105
	$(50 \times 2,538,077,325,000) / 3,093,281,778,637$	41.020
yellow	$(50 \times 2,474,625,420,000) / 3,093,281,778,637$	39.677
	$(50 \times 2,414,268,705,126) / 3,093,281,778,637$	39.024
green	$(50 \times 2,356,786,000,000) / 3,093,281,778,637$	38.095
	$(50 \times 2,302,000,000,000) / 3,093,281,778,637$	37.210
green-blue	$(50 \times 2,249,660,000,000) / 3,093,281,778,637$	36.363
	$(50 \times 2,153,193,100,000) / 3,093,281,778,637$	34.804

blue	$(50 \times 2,062,445,600,000) / 3,093,281,778,637$	33.337
	$(50 \times 1,979,700,000,000) / 3,093,281,778,637$	32.000
blue-indigo	$(50 \times 1,903,546,594,380) / 3,093,281,778,637$	30.769
	$(50 \times 1,867,641,820,000) / 3,093,281,778,637$	30.124
indigo	$(50 \times 1,833,056,000,000) / 3,093,281,778,637$	29.629
	$(50 \times 1,799,727,580,000) / 3,093,281,778,637$	29.090
indigo-violet	$(50 \times 1,767,590,000,000) / 3,093,281,778,637$	28.571
	$(50 \times 1,717,411,389,000) / 3,093,281,778,637$	27.760
violet	$(50 \times 1,649,000,000,000) / 3,093,281,778,637$	26.655

To simplify the calculation of the spaces and to obtain the complete cycle, we will calculate for the violet-red, which gives us the total distance of 25 centimeters.

colour	formula	occupies location (cm)
violet-red	$(50 \times 1,596,532,532,900) / 3,093,281,778,637$	25.806

red $(50 \times 1,546,640,889,318) / 3,093,281,778,637$ 25.000

To calculate the range of each colour over a distance of 25 centimeters, you need to measure the segment where each colour or half-colour is located.

For example: from violet-red (51.612) to red and a quarter (48.48), the distance is 3.132 [cm] for red;

from red 1/4 (48.48) to orange minus 1/4 (45.390), the distance is 3.09 [cm] for red-orange;

from orange minus 1/4 (45.390) to orange (43.243), the distance is 2.147 [cm] for orange;

from orange (43.243) to yellow minus 1/4 (41.020), the distance is 2.223 [cm] for orange-yellow;

from yellow minus 1/4 (41.020) to yellow 1/4 (39.024,3), the distance is 1.9967 [cm] for yellow;

from yellow 1/4 (39.024,3) to green 1/4 (37.209,6), the distance is 1.8147 [cm] for green;

from green 1/4 (37.209,6) to blue minus 1/4 (34.804), the distance is 2.4056 [cm] for green-blue;

from blue minus 1/4 (34.804) to blue 1/4 (32.000), the distance is 2.804 [cm] for blue;

from blue 1/4 (32.000) to indigo minus 1/4 (30.124), the distance is 1.876 [cm] for blue-indigo;

from indigo minus 1/4 (30.124) to indigo 1/4 (29.090), the distance is 1.039 [cm] for indigo;

from indigo 1/4 (29.090) to violet minus 1/4 (27.760), the distance is 1.23 [cm] for indigo-violet;

from violet minus 1/4 (27.760) to violet 1/4 (25.806), the distance is 1.954 [cm] for violet.

By adding the total vibrations of the scale from red to violet—226,296,875,000,000—to the result of the vibration 32,328,125 multiplied by the

harmonic, the exact vibration of each colour is obtained. That is to say, the 8 millionth harmonic multiplied by the vibration 32,328,125 gives 258,625,000,000,000 for red. The 15 millionth harmonic multiplied by the vibration 32,328,125 gives 484,921,875,000,000 for violet.

$$\begin{array}{r}
 484,921,875,000,000 \\
 - 258,625,000,000,000 \\
 \hline
 = 226,296,875,000,000
 \end{array}$$

If the 8-millionth harmonic gives 258,625,000,000,000 for red, adding 226,296,875,000,000 to this number will yield its total vibration:

$$\begin{array}{r}
 258,625,000,000,000 \\
 + 226,296,875,000,000 \\
 \hline
 = 484,921,875,000,000
 \end{array}
 \quad \text{for red}$$

The 8,500,000th harmonic:

$$\begin{array}{r}
 274,789,062,500,000 \\
 + 226,296,875,000,000 \\
 \hline
 = 501,035,937,500,000
 \end{array}
 \quad \text{for red-orange}$$

The 9,000,000th harmonic:

$$\begin{array}{r}
 290,958,125,000,000 \\
 + 226,296,875,000,000 \\
 \hline
 = 517,250,000,000,000
 \end{array}
 \quad \text{for orange}$$

The 9,500,000th harmonic:

$$\begin{array}{r}
 307,117,187,500,000 \\
 + 226,296,875,000,000 \\
 \hline
 = 534,414,062,500,000
 \end{array}
 \quad \text{for orange-yellow}$$

The 10,000,000th harmonic:

$$\begin{array}{r}
 323,281,250,000,000 \\
 + 226,296,875,000,000 \\
 \hline
 = 549,578,125,000,000
 \end{array}
 \quad \text{for yellow}$$

The 10,500,000th harmonic:

$$\begin{array}{r} 339,445,312,500,000 \\ + 226,296,875,000,000 \\ \hline \end{array}$$

$$= 565,742,187,500,000 \quad \text{for green}$$

The 11,000,000th harmonic:

$$\begin{array}{r} 355,609,375,000,000 \\ + 226,296,875,000,000 \\ \hline \end{array}$$

$$= 581,906,250,000,000 \quad \text{for green-blue}$$

The 12,000,000th harmonic:

$$\begin{array}{r} 387,937,500,000,000 \\ + 226,296,875,000,000 \\ \hline \end{array}$$

$$= 614,234,375,000,000 \quad \text{for blue}$$

The 13,000,000th harmonic:

$$\begin{array}{r} 420,265,625,000,000 \\ + 226,296,875,000,000 \\ \hline \end{array}$$

$$= 646,562,500,000,000 \quad \text{for blue-indigo}$$

The 13,500,000th harmonic:

$$\begin{array}{r} 436,429,687,500,000 \\ + 226,296,875,000,000 \\ \hline \end{array}$$

$$= 662,726,562,500,000 \quad \text{for indigo}$$

The 14,000,000th harmonic:

$$\begin{array}{r} 452,593,730,000,000 \\ + 226,296,875,000,000 \\ \hline \end{array}$$

$$= 678,890,625,000,000 \quad \text{for indigo-violet}$$

The 15,000,000th harmonic:

$$\begin{array}{r} 484,921,875,000,000 \\ + 226,296,875,000,000 \\ \hline \end{array}$$

$$= 711,218,750,000,000 \quad \text{for violet}$$

It is according to this law that the artist can compose harmonious creations based on their ingenious concepts. They have complete freedom to create, provided they do not stray from the laws of unity.

Scientific knowledge of colour allows the artist to express artistic concepts through a pure form of plastic art, entirely different from earlier plastic arts. This is where the importance of this knowledge lies.

The artist creates beauty through new means, in the realm of the greatest purity.

The previous pictorial or sculptural plastic arts were not pure in the sense that they substituted subject for colour and form for volume. This kind of plastic art was accepted despite deviating from the concept of pure plasticity.

Life evolves, and today's human employs different means than those of the past. The knowledge of the motor engine has transformed humanity, offering a new perspective on life. If the organization of human life has changed due to the progress of evolution, art, which follows the same law, cannot remain stagnant. However, its evolution is slow, as it has been halted for centuries by the means of ancient plastic art.

The methods of the past are far removed from our era and the life we lead.

In the past, plastic art was conceived in alignment with nature. Yet, nature itself has no inherent plasticity. Colour and volume alone are the tools of artistic plasticity.

Ancient artists had their own vision of nature, materializing it in colour, which they called painting, or in forms, which they called sculpture. This constituted their plastic art. However, the plasticity of pictorial art lies purely in the realm of colour, without introducing anything from nature. Similarly, the plasticity of sculptural art lies

purely in the realm of volume, without incorporating natural forms. The word "plastic" once had a meaning different from its true value. Art was not practiced within the realm of plasticity but through a medium that imitated nature, hence the pseudo-natural.

However, aesthetic beauty is entirely devoid of nature because it is abstract, emanating from the mind. Natural beauty is not aesthetic but typical. A forest is beautiful, but not aesthetically beautiful, and a work of art depicting a forest cannot move us aesthetically, only through its typical character. An old man is beautiful, and a work of art depicting an old man is typical, but aesthetic value is entirely absent. Many artists believed that beauty is ugliness, and in light of their knowledge of ancient art, they were not wrong since both are typical.

If art were merely a conception of nature, ceramics and architecture would no longer provide us with a sense of aesthetics.

But since art is abstract, we can only find its highest value in the realm from which it originates. I do not intend to criticize the art of the past. I respect the efforts of my ancestors, but I must present the results of my artistic research.

Michelangelo was the greatest artist of his time, but if he were resurrected today, when science has given us wireless telegraphy, airplanes, and so on, he could not deny intellectual progress. Using airplanes does not diminish the sublime beauty of the locomotive, but its use has become limited. From the perspective of evolution, art does not differ from science. My comparison between the artist and the product of science is thus justified. I could just as well point to the amazement of a man born 500 years ago when confronted with the life of the year 2000. No one can ignore that

today's forms of government no longer suit us and that those in power are deeply troubled, but this belongs to the domain of politics, which must seek a form that aligns with the life we should lead, not the one we currently live.

I simply wish to share the results of my artistic research.

May I have the honor of not being thought presumptuous as I present a more accurate conception of plastic art.

A thousand years ago, a fool might have laughed at wireless telegraphy and airplanes. One need not be entirely foolish for this, but such a person would have called evolutionists "pretentious."

The conception of pictorial or sculptural plasticity within their domain—pure and precise—is the art of the future, as it must and will be.

This plasticity, thus conceived, is universal and unchanging. It is the law of plastic art. This law has been ignored or neglected by all artistic movements. The futurists and cubists have found a new form of art, but it does not adhere to the law of pure plastic art.

The plasticity of pictorial art is purely about colours and lines, yet it is so rich! Colour is not limited to the spectrum of red to violet, which is merely the spectrum of red; the artist can compose in the various spectrums of each colour, along with their reversals.

One can never disregard the law of colour, and the more the artist understands this law, the more their creative spirit will grasp its rules.

This creative spirit and the knowledge of the domain in which the artist wishes to manifest will unite, and the result of this union will fully realize aesthetics.

There are several rules within the laws of colour. The fundamental colours number seven. Each one plays a role depending on its juxtaposition with another. This is the law of attraction. There are also rules of resolution, and the rules of reversal will apply. The area of each colour will relate to the type of colour it accompanies. This is relativity. As many cases as there are, there are corresponding rules. All of this is found in the analysis of the seven fundamental colours.

Drawing is the harmony of the relationships between lines. Therefore, one can speak of drawing within painting. The boundaries of a colour—that is, the contours of its surface—form a drawing. Thus, drawing does not consist of reproducing shadows, forms, and all other details achieved through pencils, charcoal, or other tools. The understanding of drawing, just as with painting, has been distorted. Drawing is purely lines, and a work of art in drawing is the harmony of line relationships directed toward an aesthetic goal.

One might occasionally be tempted to think that my reflections on art are at times philosophical, at times scientific. However, they belong purely to the domain of art. I have no knowledge of philosophy and know nothing of science, but I do know that art is the product of two methods: one philosophical—speculation, and the other scientific—empiricism. These are the two means by which the artist realizes their conception.

The artist's conception is purely speculative; it is neither imaginative nor whimsical.

The realization of their conception—that is, its materialization—is purely empirical, but it is not an experiment based on nature, rather one based on the nature of matter itself. This is why it is not separate from

speculation but forms one with it. The two methods constitute the unity of the work.

Just like the scientist, the philosopher, and the artist rely on abstract forms. To create porcelain, the ceramicist uses certain minerals: alumina, silica, etc. Every science requires calculation and materializes through abstract means. A machine is composed of no natural object. Matter is given abstract forms that obey laws—for instance, the construction of a bridge obeys gravity, and an airplane obeys stability. Everything, therefore, follows a fundamental law. However, while scientific forms may be beautiful, they are not entirely aesthetic. Science aims at utility.

Thus, the artist also relies on abstract means. A line that does not represent a natural object is nonetheless the most perfect materialization of art. Natural lines do not convey the image of thought but rather a local image. The creation of a natural object is not the materialization of the spirit. It is fetishism because it attempts to attribute a spirit to matter while being incapable of finding a way to materialize the spirit.

A line, in relation to another line, speaks to us of science, philosophy, and even art.

If the relationships are balanced, the lines give us a sense of aesthetics.

Points (abstract forms) create a line; lines create a plane; and planes create a volume. Using these means, create something with balanced relationships, and you will have created a work of aesthetics.

Use these means mathematically, and you will have done scientific work.

Create an image from these means, and you will have done philosophy.

Philosophy speaks of a point, a line, a plane, a volume, light, and colour to demonstrate the universe.

The scientist uses these means to show the forces of the universe. The artist employs these same means to reveal the splendor of the universe.

Philosophy, science, and art strive for unity through the means of evolution.

I believe I have sufficiently demonstrated that my concepts belong to the realm of art rather than to philosophy or science.

Philosophy, science, and art are thus merely tools.

Philosophy is the tool to express Truth.

Science is the tool to experiment with Truth.

Art is the tool to express a sense of aesthetics or to materialize beauty through a plastic process that remains within the realm of art.

Menton, 10 August, 1920.

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1. The upper limit of normal human hearing is generally taken to be approximately 20,000 Hz, though this varies with age and individual sensitivity.
 2. The physical range of red light is from 4.0×10^{14} to 4.8×10^{14} Hz, hence Vantongerloo's value of $4.84921875 \times 10^{14}$ Hz borders on orange light.
 3. Vantongerloo's "frequencies" are not physical optical values but positions in a harmonic progression derived from a fixed base number (32,328,125) multiplied by selected "harmonics." The resulting figures function as proportional markers within an abstract vibratory spectrum and the associated colour names (rouge, orangé, jaune, etc.) denote points in this numerical sequence, not measured wavelengths. These values therefore correspond to colours only within the logic of Vantongerloo's theoretical system, and should not be interpreted as literal electromagnetic frequencies.

IV. WHAT WE ARE IN RELATION TO EXISTENCE

DETERMINATION

Since everything is in perpetual transformation, we can say that nothing exists definitively.

Thus, there is a creative "nothing" (Transformer).

Everything that manifests to our senses is only the existence of nothing.

We cannot determine the existence of colour absolutely, except through calculation, which is, for human beings, the means of determination or understanding. Likewise, we cannot determine the existence of a thing except in relation to another thing.

To ascertain the existence of an object, we rely on the third dimension. This dimension does not exist. It is simply a means, for humans, to determine an object. Yet, an object has no dimensions. We say of a volume that it has three dimensions and of a plane that it has two. This is false, because every object contains all dimensions: expansion and extension.

We use the third measure to determine the object. The third dimension therefore does not exist. That is to say, it is merely a means of determining the object in relation to another. The third dimension, as an absolute, does not exist because it is not possible to determine a point in space. Indeed, the distances separating

the stars from one another are relative to the motion of those very stars themselves.

If I take, as a starting point for my measurement, a specific point on the Earth, since the Earth is moving through space, the point I would have considered absolute will have moved. Therefore, any measurement becomes impossible. In summary, the third dimension only exists as a means for us to define a point in relation to another, not in space, but on the Earth with which we are moving.

Since the Earth carries us along in its movement, we are able to determine points on it. We know that speed plays a significant role in the existence of things. Everything was created by energy, and action is the manifestation of energy. Everything is thus set in motion in space with equal, but proportional, speed. The microbe, whose life lasts only a few seconds, has gone through the same cycle of existence as a human being who lived a full life.

This brings up the question of the infinitely small and the infinitely large from an observer's perspective. If the Earth rotates in 24 hours and Jupiter in 9 hours 56 minutes, it is merely a question of proportion. If tomorrow we doubled the size of our measure, the proportions would not change. There is only "ONE." If something is small or large to us, its relativity can be summarized in "ONE." A microbe has lived its few seconds, and it did not seem any shorter to it than our life seems to us. The size of the Earth is relative to its speed. Everything is therefore relative but can be summarized in "ONE," which represents both the infinitely small and the infinitely large. Everything remains in relation, whether big or small.

We can say that nothing exists in an absolute manner, because everything is in perpetual transformation. Just as the density and mass of bodies change with their speed, and everything is in continuous movement, we can state that matter does not exist any more than time or space does.

For us, humans, who have the ability to use five senses, this means allows us to observe the existence of a certain number of phenomena. That is to say, we communicate through transmission. Our human sense believes in an existence. Indeed, our senses perceive everything that is perceptible to them, because beyond and below that, we perceive nothing. Everything that is in accordance with our system, our kind, we perceive. Thus, we see certain things in nature because they are at the same speed as us. Their transformations are, comparatively, at the same speed as ours. We are therefore able to perceive them. We do nothing but observe. We observe the differences between things by comparison.

When man wants to rise to the knowledge of things, he can only do so through abstract means, through means created by him, but which have value only for him. This is why I say that man has the desire to rise to the knowledge of things, because his nature cannot go beyond what it is. But he creates a spiritual elevation through the search for the laws of nature that he is able to feel. Man has therefore created means that allow him to understand what he observes through his senses. He has created numbers to determine things through calculation; the point, the line, the third dimension, to determine volume. Man has imagined a multitude of means and controlled and coordinated them.

Thus, the straight line represents to him something that has neither end nor beginning. Numbers, likewise, go on infinitely. A line segment is a unit of line, just as a segment of number (a digit) is. Man therefore turns to mathematics to make understandable everything he observes. But mathematics only exist for man who wishes to use them.

The primitive man did not know the straight line. He did not see it in nature since nature does not contain mathematics, although one can establish it more or less mathematically. The primitive man could only know the curvilinear, but this has no complement and cannot create any determined relationship. It does not constitute any means. It is like nature itself—rough, without elevation or civilization. What seems paradoxical is that, to understand nature, one must specifically resort to something that is not nature at all. And what is even more striking is that when one tried to imitate nature, one only created a simulacrum, thus, nothing of nature at all. It's a mere plagiarism. It's *trompe l'œil*, something that has no reason to exist. It's childish. This is why the tendencies in art are explained. Art does not want to appear; it wants to express something. We have seen this tendency toward the demonstration of things through the ages. When Michelangelo created a work, he resorted to the science of geometry. In my humble opinion, one should not subject the object of nature to geometry. Geometry is only our tool, and therefore only our point of view, because although nature can be studied geometrically, it does not contain geometry. Thus, a figure seen in any attitude could only be determined by the third dimension, although this third dimension does not exist. So, wanting to construct

something by geometric angles and introduce the curvilinear of nature, this slender line of the human body as some painters say, is to put in conflict two things that have nothing in common. Artists feel this very well, which explains their tendencies, because they know that although Michelangelo's work is already a great result, it is still not satisfactory. If it were, we would have preserved it as a type cliché. Therefore, if Michelangelo's work cannot serve as a type, nature can even less, because by following it slavishly, one only obtains chromo.

I know very well that art does not exist, nor do mathematics, but starting from the principle that nothing exists, and that we, humans, have five senses that we must nourish as much as our bodies, we can resort to a form that most purely expresses our aesthetic sensations. Just as mathematics is the clearest way to understand things demonstratively, art is the most suitable means for feeling things aesthetically. Geometry, being the clearest form to determine the relationships between things, allows us to achieve the maximum of aesthetics through the juxtaposition of planes and volumes. Art will therefore not imitate nature, but will evoke an aesthetic sensation through the means most appropriate to its realization. Now, the realization of a work of art is the use of a plastic medium to express an aesthetic sensation. Aesthetic, harmony, only exist when there are relationships, a coordination between the things expressed. A man and a tree are quite distinct and have no common relationship. There is no connection. Therefore, if one expresses oneself in a certain plastic form, one must remain within the domain that it expresses.

A work of painting is therefore purely plastic

in colour. If there are relationships between colours, which are the means through which one expresses oneself, there is harmony. Now, harmony is unity, and unity is aesthetics. Something is aesthetic only when there is unity, and unity is not possible without the coordination of the elements used to express an aesthetic sensation. This therefore determines that one must externalize oneself in a plastic form, whether pictorial, sculptural, musical, or otherwise. One cannot introduce another form of plasticity into it, because introducing volume into pictorial plasticity removes the relationship required by unity. This is why dynamism has nothing to do with pictorial, sculptural, or musical plasticity. The relationships of colours, the relationships of lines used to divide the plane in a harmonious way where one desires to compose, belong solely to the domain of the plasticity of pictorial art. Any objective accessory is harmful to pure plasticity, given its attraction to local dominance. All of this already constitutes an impurity and is nonexistent in harmony or absolute unity, and also because of the lack of coordination with the objects surrounding it.

Throughout the ages, artists have felt this obstacle. But since the arts were always part of the realm of objects, the artist could only change the object. Hence, the various eras and the various trends to externalize what should have been universal and absolute. Finally, the law of aesthetics, freed from any attractive thing—beauty, sentimentality—becomes nothing but the plastic and aesthetic truth.

However, our ancestors were not exempt from the premonition of unity, and we can observe, in the works of Van der Weyden, for example, a concern with the division of the plane. Van der Weyden's paintings are all divided according to the principle of unity,

but the Master combined, within the principle, the local history of a religion. A religion being philosophical, Van der Weyden found coordination between a philosophical history and the division of the canvas. The passion and firm belief in the existence of a supreme force—the Trinity, the Passion according to St. John, and the words of Christ—gave him the certainty of the existence of unity, on which all his work is based and from which it draws its characteristics. In religion, there is a principle of unity, but unfortunately, it is materialized in characters. Not being able to abstract from the religious subject, Van der Weyden, while maintaining the principle of unity and its laws, could not abstract from the subject, which makes his work local and tied to the history of a religion. It is because of his deep piety that Van der Weyden's work is great, not because of the subject he expresses or represents, but because of the eternal principle he introduced. A canvas is a segment of space. Space has neither a beginning nor an end, but when we want to provoke an aesthetic sensation, and that through the sense of sight, we must resort to data that are not strictly conventional, but that are the means of materializing our thought. And in order to communicate our thought, we must be able to manifest them in the domain that best conveys their character. We know that unity exists and that it can be demonstrated through various means, but in order to resort to a means, it must be taken from the domain that is proper to it.

Mathematics is a means. The infinitely small and the infinitely large can be demonstrated by numbers.

Numbers, or digits, are products of the brain, just like the arts, sciences, and philosophy. They are, like the third dimension, tools for humans to demonstrate the state and progress of things. Through

their combinations of 9 digits, plus zero, we are able to demonstrate the invisible and even the incomprehensible. Beyond simple calculation, we manipulate numbers to extract square roots, cube roots, 4th, 6th, 8th, 9th roots, logarithms. Now, since everything is interconnected and each science shows a facet of unity, it follows that to know the sciences is to know unity. However, each science, in particular, is a means of analyzing unity. This whole concept begins with "ONE," which we can call unity. The point is the image of both the infinitely small and the infinitely large. If we enlarge the point, we see a circle emerge. Since everything is divisible, we can also divide the circle. We can divide it into 360 degrees or into equal parts: 10, 100, 1000, etc. We can also divide it into logarithms of numbers, and through this, we arrive at the wonderful discovery of Arnauld-Paineau, who found, through the division of the circle or logarithms of numbers, where the inner divisions move to the right and the outer divisions move to the left, the realization of every calculation I mentioned earlier. If I have insisted on telling you about this, it is because this discovery clearly demonstrates the existence of unity, that everything is interconnected, and that the means of numbers proves it to us.

I know very well that matter does not exist, that everything is in perpetual transformation, and that everything obeys relativity. But, I repeat, man has found some means that allow him to present to our senses the reality of something we cannot perceive because our sensory system is only sensitive to vibrations of a given frequency. Thus, man connects us with certain laws that guide everything and shows us the existence of the truth. Once we know these laws, we can analyze nature, see it as it is,

and even beyond that. This is where the art of colour, following its law and not the object, is the best way to manifest aesthetics in its true sense, because the colour of the object will always be only a typical and local manifestation, devoid of absolute unity and never retaining anything but a typical local character.

I said that the works of Van der Weyden are all divided according to the principle of unity. I am therefore submitting two works of this master for your examination. One is the triptych “*Descent from the Cross*”, the other is “*The Seven Sacraments*”.

The work “*Descent from the Cross*” was composed along the line.

Starting from a segment of a line (thus the straight line of a determined length: 16.8, for example), we divide this line in half, i.e., 8.4 for each part. We raise a perpendicular from the midpoint of the line, forming two 90-degree angles. This perpendicular has a height of 7.8. From its endpoint, we draw a line to the two ends of the baseline of 16.8. This same drawing is then flipped, forming the layout of the total surface of the canvas, which is 16.8×7.8 . The flipping of the drawing also gives us the division of the half and the horizontal plane direction. We then raise two new perpendiculars on the crosses formed by the flipping of the drawing, and we obtain the division that forms the triptych: one central panel and two side panels.

We can thus observe the geometric shape in which this triptych was composed. The bold line shows us this through the diagonal of the central plane—this diagonal forms an angle with the diagonal of the planes of the right and left wings. These two wings together form the same surface as the central plane.

In a 16.8×7.8 plane (i.e., the rectangle 1.9.A.I. from the diagram), Van der Weyden, being confronted with a determined surface and wishing to compose a triptych, sought the most perfect proportions, which led him to determine the width of the frame, which in itself became relative to the total surface.

Thus, Van der Weyden took this rectangle and divided it longitudinally into four equal parts by the lines: 12.P — 14.N — 16.L. This division, as mentioned earlier, comes from the reversal of triangle 1.141, which becomes 9.N.A. The combination of these two triangles is the total area of the composition and naturally leads to the divisions of the triptych.

Van der Weyden determined the center of each wing (right quarter and left quarter) by drawing the two diagonals. The centers are thus found at points X and X'. For the unity of the composition, the artist drew a line from point X to point A and another line to point I, forming the triangle A.X.L., and did the same at point X', leading to the triangle 1.X'.9.

The frame emanates naturally from the combination of all these lines. Van der Weyden did not create an arbitrary frame.

You will notice, in the diagram, that the frame is formed by the lines 9.10 — 11.13 — 15.17 — 18.A, and on the other hand, by A.B. — H.I.

These dimensions were determined by the following method:

- 1° The line 11.9 of the frame is at the intersection of the lines 9.X'. — 1.12.
- 2° The line 13.0 of the frame is at the intersection of the lines 6.14 — 12.11.
- 3° The line 15.M of the frame is at the intersection of the lines 16.N — 14.D.

- 4° The line 17.K. of the frame is found at the intersection of lines 16.1. and A.X.
- 5° The top frame line (8.B.) is located at the intersection of lines P.16 and 15.M on one side, and at the intersection of lines 12.L and 13.0 on the other side.
- 6° The bottom frame line (2.H.) follows a similar movement as the top frame but is formed through the phenomenon of reversal. It is found at the intersection of lines P.16 and D.13 on one side, and at the intersection of lines L.12 and M.15 on the other side.
- 7° The right frame line (18.-) is the result of combining lines 7.C., 16.1., and X.A. Line 7.C. is created by drawing a straight line through all the intersection points previously mentioned (1°— 2°— 3°— 4°). This line, when cut by line L.A., gives the vertical line 18.J at the intersection points.
- 8° Similarly, the left frame line (10.R.) is found at the intersection of lines C.7. and P.9.

It is in these divisions of the surface of 16.8 x 7.8 that Van der Weyden composed his subject. One can notice that he strictly adhered to these divisions, and they contribute to the beauty of the composition. If we continue with the law of division, we will soon realize how everything is carefully thought out and finds its reason for being.

As for the triptych “*The Seven Sacraments*”, it was composed within the equilateral triangle. The determined surface therefore plays its role, as a composition within the equilateral triangle will have different effects from those we have just seen, which are the result of the problem of composition on a line segment whose length is 16.8. One only has to look at both works to notice the difference in composition, which lies,

as I just mentioned, in the basis of the problem that the composer solved.

Let us now look at the composition of the equilateral triangle.

The equilateral triangle is a flat surface whose center shifts in relation to the composition. The entire triptych by Van der Weyden already demonstrates this through its presentation. The two angles on the left and right at the top are unoccupied, or more accurately, remain empty. However, these two emptinesses work plastically and aesthetically. For this kind of composition, it was necessary to create harmony in relation to the two emptinesses. That is to say, the two emptinesses act on the entire plane, imposing a division of the central plane and at the top of the canvas, where the two emptinesses are located. It is the cross that gives us this division. The reason is as follows: The total plane is divided by X. If I created two emptinesses on each side at the top of the canvas, each one being $\frac{2}{5}$ of the total height, and if I repeated these $\frac{2}{5}$ as a division in the rest of the surface, there would remain $\frac{1}{5}$, and at the bottom of the canvas, we would have a monotonous composition. Therefore, a division of $\frac{1}{5}$ was necessary at the top of the canvas, where the two emptinesses are, and the cross provides this. This division immediately acts plastically on our aesthetic sense when we view this work because if Van der Weyden had made this division at the level of the emptiness, it would have split the canvas in two, which would have been poor. Whereas now, this dimension is purely aesthetic. It also has the following effect: it shifts the $\frac{1}{5}$ at the bottom of the canvas upwards and gives the $\frac{4}{5}$, which gives it an elevating character. If the cross had been at the level of the two emptinesses, the canvas would have been impoverished due to the separation of the $\frac{2}{5}$ and $\frac{3}{5}$. But in order to link the two wings with the center, Van der Weyden marked the heights of the windows with the lines that

indicate the two emptinesses on each side and took the feet of Christ as the center of the canvas itself. Through analysis, we can see the fortunate harmony of division in this work, whose goal is to be composed within the equilateral triangle.

The equilateral triangle has a particular appearance that it is necessary to understand in order to compose in its own character.

When we draw the bisectors of each angle, we obtain the geometric locus of the equilateral triangle. If, from the base of the triangle, we draw perpendicular lines to its two ends up to the height of the opposite vertex, we form a surface within which we can compose everything in the character of the equilateral triangle. The lines AD-BE, crossing the two sides of the vertex angle, intersect the two sides of the total surface and indicate the location that forms our two emptinesses starting from the frame as the endpoint. By drawing the diagonals of the entire plane surface, namely AG-BH, we will see that they intersect the sides of the equilateral triangle and also indicate the location of the two emptinesses, as well as by drawing a line from the center of each small side of the surface to the opposite angle, namely IH-G].

At the intersection of these same lines and the sides of the inverted equilateral triangle GFH is where the canvas of the two wings of the triptych begins. The lines MN and OP give the surface area of the central canvas and are created by the line KL, which passes through the intersection of the lines IH-FG and GJ-FH and cuts the equilateral triangle ACB. If we continue subdividing this surface, we will notice the care that Van der Weyden took in the good composition.

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When one is fully aware of these principles and understands what the plasticity of art is, one easily grasps their significance and will see where knowledge of pure plasticity can lead us. If painting and sculpture follow a mathematical law, they can only find their place in a mathematically balanced surface or volume. Easel painting, created for remembrance, to express a story linked, in a way, to the subject, possessing all the qualities of typical things, is not pure plasticity and cannot express an aesthetic sensation.

But it is not enough to know what the plasticity of art consists of. One must also know how to compose. This is indeed the art in the full sense of the word. He who knows how to add, divide, multiply, and subtract does not yet know mathematics. He could not even call himself an accountant. One must therefore know how to create. But new art only has real value when it forms harmony, when it forms 'ONE,' with architecture, sculpture, and painting. A surface has a reason to exist only in relation to another surface. The same is true for volume. A mathematically and aesthetically established architecture will thus be the place where all problems must be solved. The division of the land on which the plans will rise, balanced relative to each other, will form an aesthetic volume that will be our architecture. The division of plans, the location and size of doors and windows, kinds of openings, must be balanced in relation to the surface they occupy. Everything must obey a mathematical and aesthetic law. The painting, colours applied to surfaces such as walls, doors, windows, etc., must obey the laws of colour and respond to the surface they must occupy. The division

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by line and colour of the surfaces of walls must be balanced, just like our doors and windows. The colours applied to furniture, and the furniture itself, must be in harmonious balance with the space they will occupy. The dimensions of the furniture, their placement, everything must obey the same laws. Furniture, doors and windows, fireplaces, are understood as part of sculpture, as well as all volumes that will find a place in a room.

This concept should lead us to a universal art, but it would be premature to provide an example at this moment. A much greater sum of money would be needed to manifest it, and even then, the time has not yet come. But when the time does come, the pure plasticity of the arts will lead us to an absolute and universal aesthetic.

It is impossible, in a simple pamphlet, to provide a more in-depth demonstration. We live in a time of transition.

Everything is progressing, everything is evolving, and the time is not far off when art and science will form a homogeneous whole.

Menton, October 1921.

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1. GIRL WHO LAUGHS. 1909.



2. OLD HEAD. 1909.



3. BURST OF LAUGHTER. 1910.



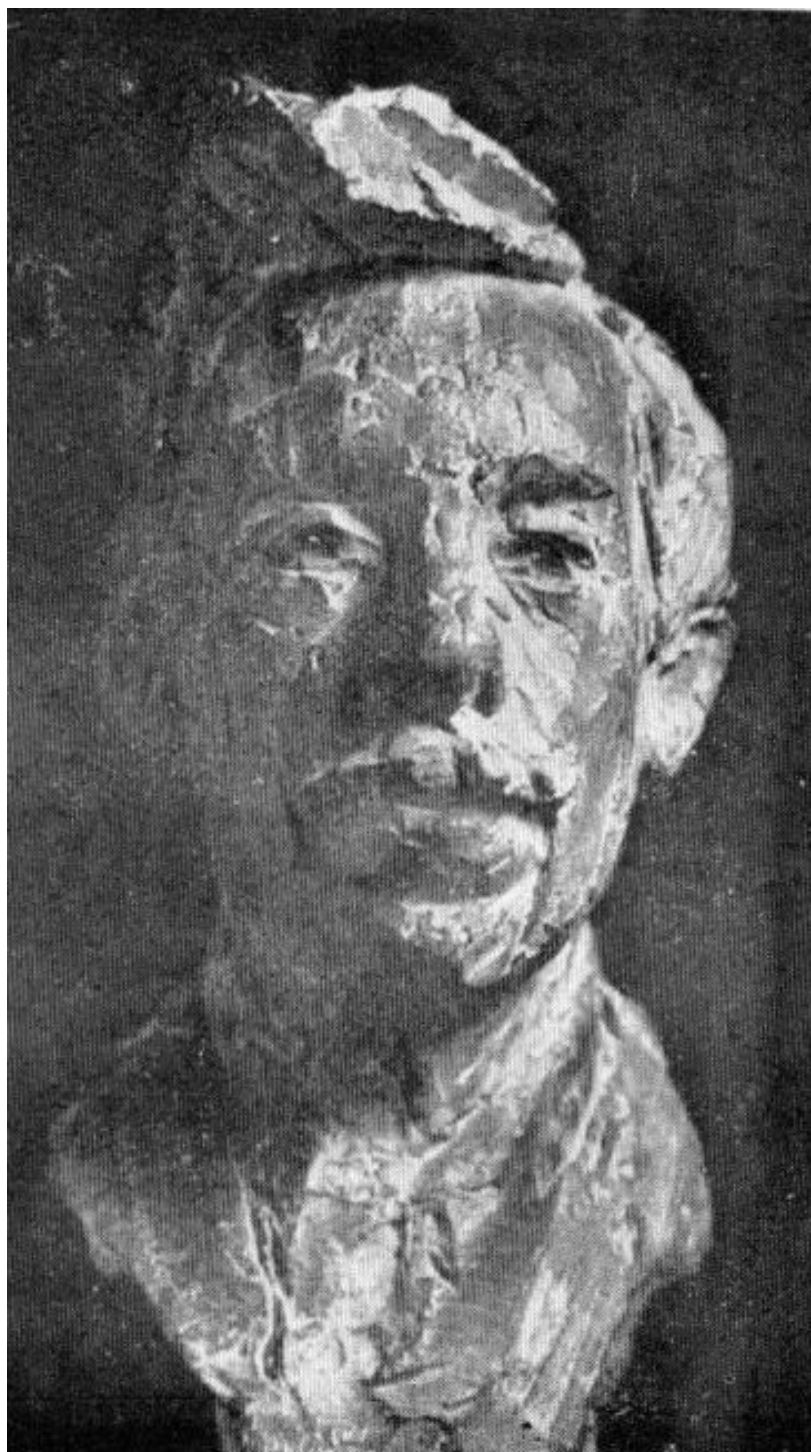
4. HEAD. 1910.



5. 1914.



6. 1914.



7. 1915.



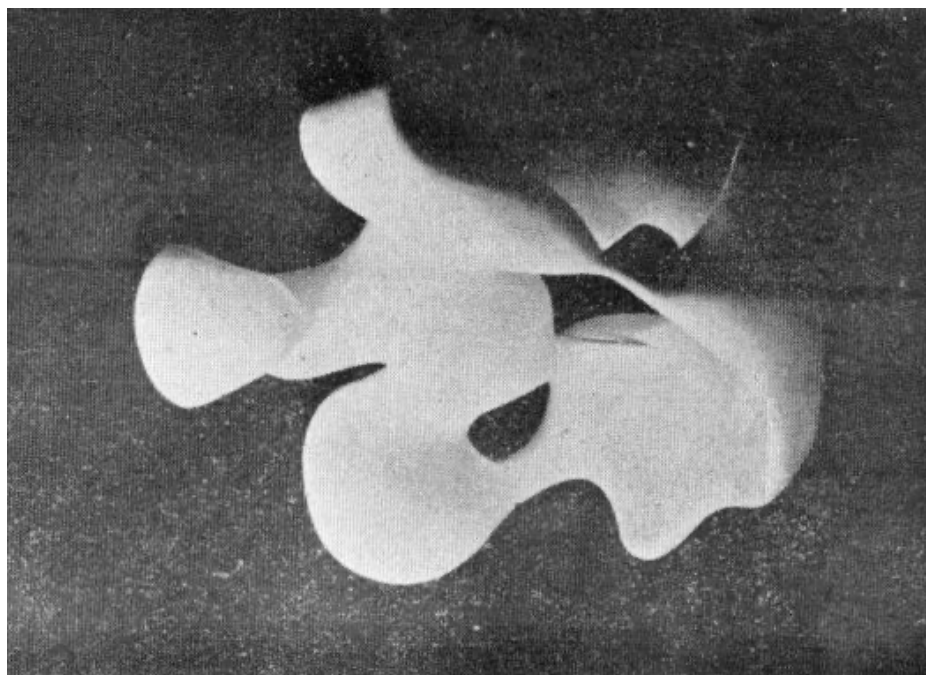
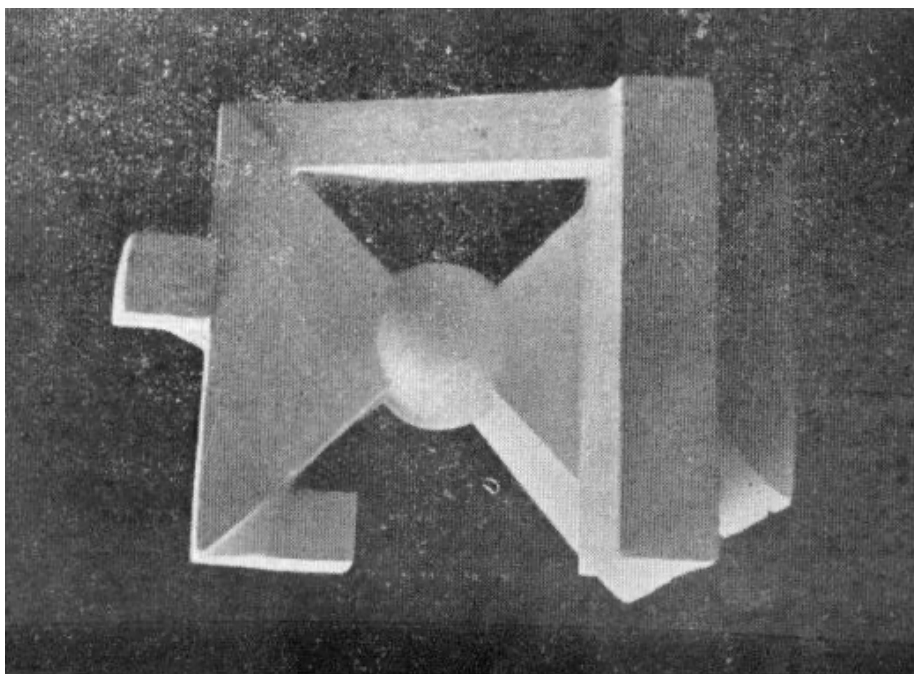
8. FRAGMENT. 1915.



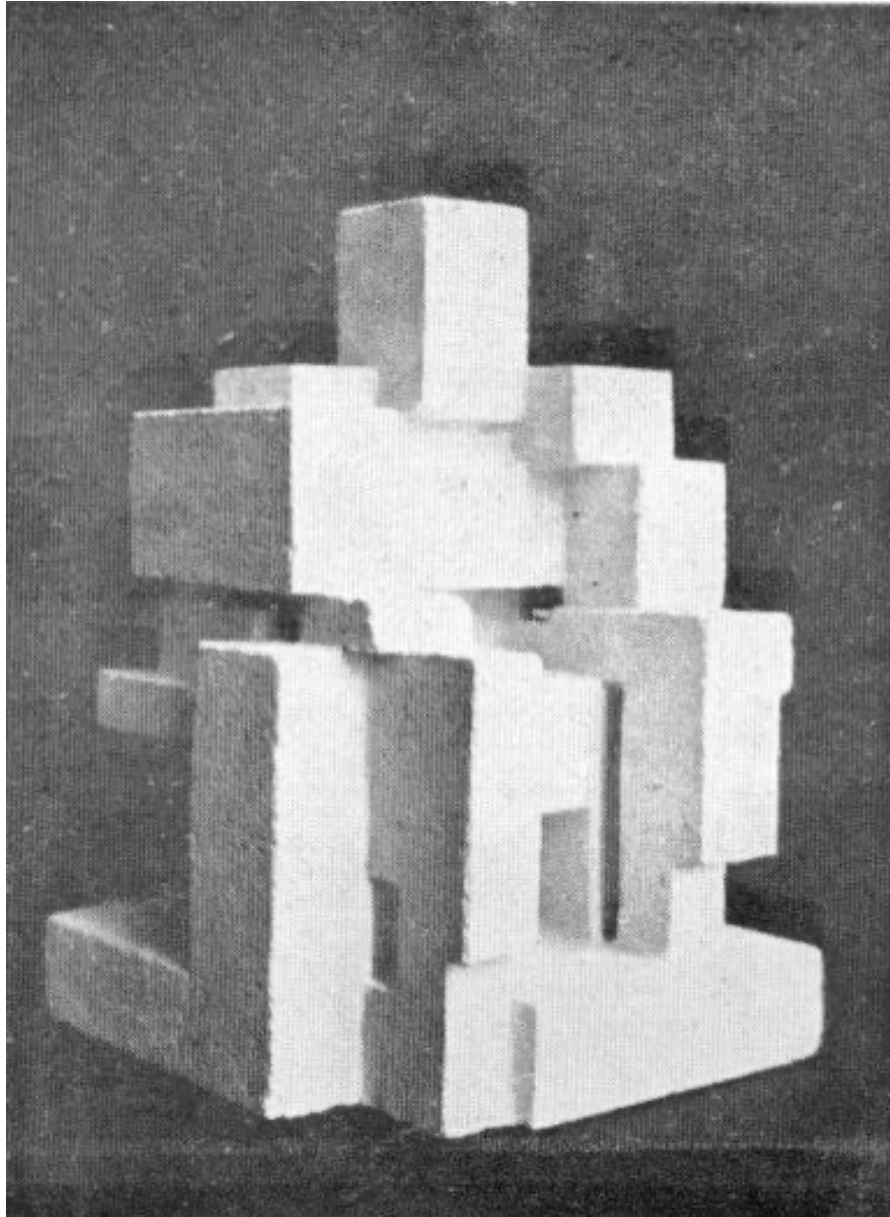
9. FRAGMENT. 1915.



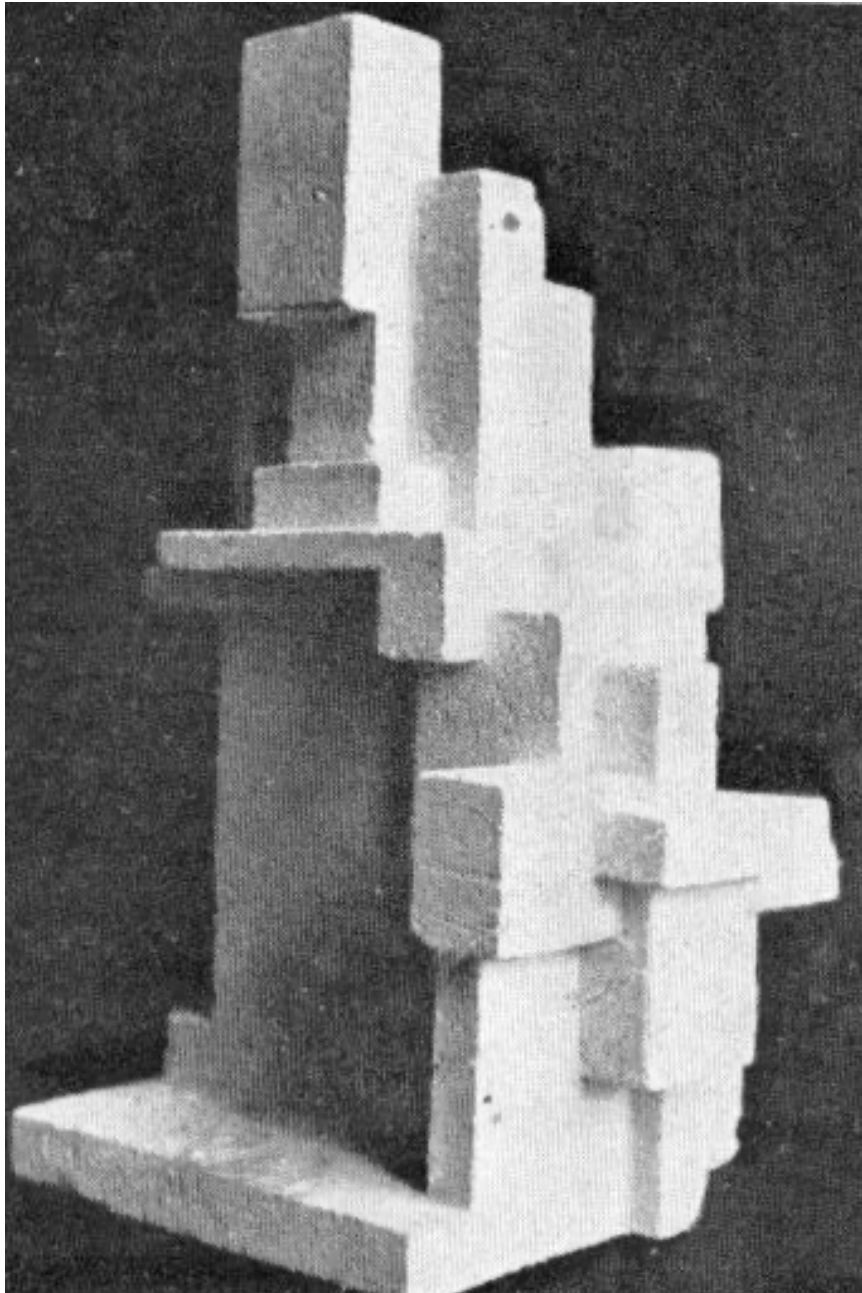
10. Volendamois. 1916.



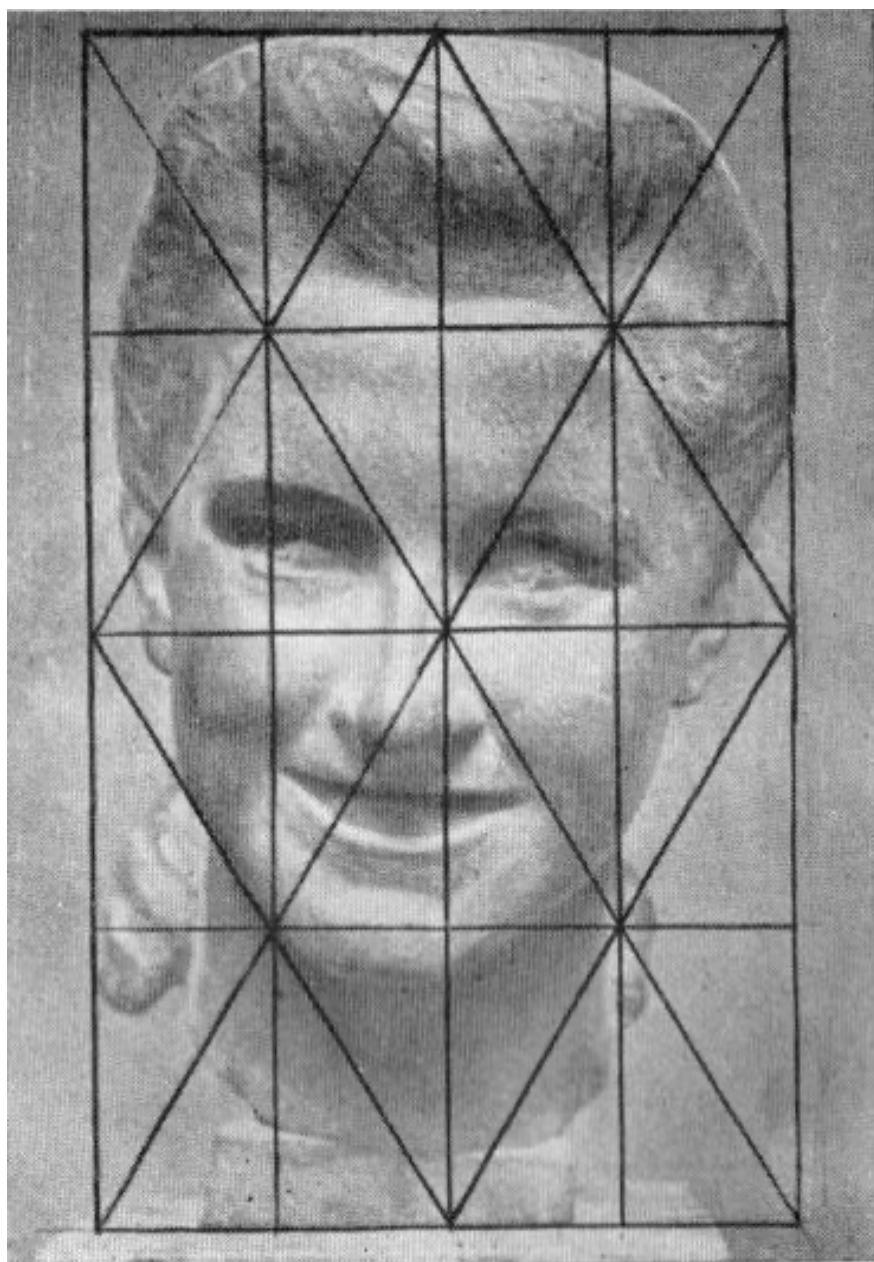
11. - 12. CONSTRUCTION IN THE SPHERE. 1917.



13. CONSTRUCTION OF THE RELATIONSHIP OF VOLUMES. 1919.



14. CONSTRUCTION OF THE RELATIONSHIP OF VOLUMES. 1919.



15.

